
REMARKS

This amendment, accompanying a Request for Continued Examination, is a full and timely response to the final Office Action dated April 15, 2003, the period for response being extended through a Petition for One-Month Extension filed concurrently herewith. By this amendment, Applicants have amended claims 3 and 4 to recite a second inter-layer insulating film formed on said first inter-layer insulating film, wherein said second inter-layer insulating film has a maximum of five layers. Support for the changes to claims 3 and 4 can be found variously throughout the drawings and specification. For example, support for the changes to claims 3 and 4 can be found in Fig. 32 element 269, and at page 38, lines 17 through 20. No new matter has been added. Claims 3-6 are pending, where claims 3 and 4 are independent.

Rejections Under 35 U.S.C. §102

Claims 3-6 were finally rejected under 35 U.S.C. §102 as anticipated by *Applicant's Alleged Prior Art Figs. 4-17 (APAF)*.

Independent claim 3 recites a semiconductor device comprising, a conductive layer pattern formed on a substrate; a first inter-layer insulating film which covers said conductive layer pattern and is formed on said substrate; a first connection hole formed in an upper layer of said first inter-layer insulating film above said conductive layer pattern; a second connection hole which reaches said conductive layer pattern from the bottom portion of said first connection hole and then has a smaller diameter than that of said first connection hole and formed on said first inter-layer insulation film; a plug having conductivity and filling internal portions of said first connection hole and said second connection hole; a second inter-layer insulating film formed on said first inter-layer insulating film, wherein said second inter-layer insulating film includes up to five layers; a third connection hole which reaches said plug and is formed through said second inter-layer insulating film; and a conductive portion which is connected to said plug and formed in said third connection hole.

Independent claim 4 recites a semiconductor device, comprising a conductive layer pattern formed on a substrate; a first inter-layer insulating film which covers said conductive layer pattern and is formed on said substrate; a first connection hole formed in an upper layer of said first inter-layer insulating film above said conductive layer pattern; a second connection

hole which reaches said conductive layer pattern from the bottom portion of said first connection hole and then has a smaller diameter than that of said first connection hole and formed on said first inter-layer insulation film; a plug having conductivity and filling internal portions of said first connection hole and said second connection hole, wherein the upper surface of said plug is formed to almost the same height as the surface height of said first inter-layer insulating film; a second inter-layer insulating film formed on said first inter-layer insulating film, wherein said second inter-layer insulating film includes up to five layers; a third connection hole which reaches said plug and is formed through said second inter-layer insulating film; and a conductive contact portion which is connected to said plug and formed in said third connection hole.

APAF illustrates a conventional method of manufacturing a capacitor-over-bit-line (COB) type dynamic random access memory (DRAM). The method includes forming an oxide film 120 on a substrate having an N-well and P-well for element isolation. A gate electrode 131 is formed on the oxide film 120. A side wall 132 is formed and used as a mask to form a source and drain region 112. Side wall 132 is removed, and an etching stopper silicon nitride film 153 is formed on the entire top surface. A polysilicon film 133 is deposited to form apertures for the bit contacts and node contacts through resist patterning. The polysilicon film 133 is etched back to form a side wall 134. Using the polysilicon film 133 and the side wall 134 as a mask, a shrunken bit line contact hole BCH and node contact hole NCH are formed by etching. Polysilicon film 135 is used to fill the BCH and NCH contact holes so that a polyplug 136 for middle takeout is formed. A silicon oxide film 157 and silicon nitride film 158 are layered over the entire surface of the substrate covering the formed polyplugs. Next, bit lines BL are formed from polysilicon film 138 and tungsten silicide being deposited on the polyplug 136. A silicon oxide film 160, silicon nitride film 161, NSG film 162, and BPSG film 163, where BPSG film is the lowermost layer, are deposited so that they cover the polyplug 136 and an insulating film 154. An additional silicon nitride film 164 is formed on the BPSG film to act as a stopper, and a polysilicon film 140 is formed on the silicon nitride film. The semiconductor device is further layered and processed so that a contact hole is formed through the polysilicon film 140, the silicon nitride film 164, the BPSG film 163, the NSG film 162, the silicon nitride film 161, the silicon oxide film 160, the silicon nitride film 158, and silicon oxide film 157. The contact hole is then filled with polysilicon 312 to form polyplug 144.

As noted above, independent claims 3 and 4 recites, among other things, a second inter-layer insulating film formed on said first inter-layer insulating film, wherein said second inter-layer insulating film includes up to five layers. Applicants submit that *APAF* fails to disclose at least a second inter-layer insulating film as recited in the claim. Comparably, *APAF* discloses a second interlayer insulating film comprising at least 8 layers, which correspond to elements 140, 157, 158, and 160-164.

To properly anticipate a claim, the document must disclose, explicitly or implicitly, each and every feature recited in the claim. See Verdegall Bros. v. Union Oil Co. of Calif., 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Because *APAF* does not teach the every claim element recited in claims 3 and 4, it follows that *APAF* fails to anticipate this claim. Thus, Applicants respectfully request that the rejection of claims 3 and 4 under 35 U.S.C. §102 be withdrawn and claims 3 and 4 be allowed.

Claim 5 depends from claim 3 and claim 6 depends from claim 4. By virtue of this dependency, Applicant submits that claims 5 and 6 are allowable for at least the same reasons given above. Moreover, claims 5 and 6 are further distinguished over *APAF* by the additional features recited therein, and particularly within each respective claimed combination.

Conclusion

Based on at least the foregoing amendments and remarks, Applicants submit that claims 3-6 are allowable, and this application is in condition for allowance. Accordingly, Applicants request favorable reexamination and reconsideration of the application. In the event the Examiner has any comments or suggestions for placing the application in even better form, Applicants request that the Examiner contact the undersigned attorney at the number listed below.

Dated: July _____, 2003

Respectfully submitted,

By _____
Ronald P. Kananen
Registration No.: 24,104
Attorneys for Applicant

RADER, FISHMAN & GRAUER, PLLC

Lion Building
1233 20th Street, N.W., Suite 501
Washington, D.C. 20036
Tel: (202) 955-3750
Fax: (202) 955-3751
Customer No. 23353

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